Benchtop Colorimeter LX100BCR

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Description

Benchtop Colorimeter LX100BCR is an advanced, high-precision color measurement instrument capable of operating across a wide spectral range. Designed for fast and consistent measurement, it features a built-in illumination source that ensures stable, accurate readings. The system also incorporates formula-based measurement technology, enabling efficient analysis across a wide variety of samples making it suitable for laboratory use, quality control, and industrial color evaluation.

Specifications

Lighting source	CLEDs (Full band balanced LED light source)
Wavelength range	360 - 780 nm
Measurement condition	d/0 (Scattered light source, 0 degree viewing angle)
Inductor	Dual optical sensor array sensor
Wavelength interval	10 nm
Integrating sphere	Φ 40 mm, Avian-D fully diffuse surface coating
Half-band width	5 nm
Measuring range	0 - 200 %
Resolution	0.0001
Observer angle	2°/10°

Observation light source	A, B, C, D50, D55, D65, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, CWF, U30, U35, DLF, NBF, TL83, TL84, ID50, ID65, LED-B1, LED-B2, LED-B3, LED-B4, LED-B5, LED-BH1, LED-RGB1, LED-V1, LED -V4
Measuring time	≤ 1.5 Seconds
Optical path	Standard: 10 mm, 50 mm glass colorimetric dish (optional 33 mm, 100 mm glass colorimetric dish)
Color space	CIE Lab, LCh, CIE Luv, XYZ, Yxy, Transmissibility, Hunter Lab Munsell, MI, CMYK
Color difference formula	ΔE*ab, ΔE*CH, ΔE*uv, ΔE*cmc (2:1), ΔE*cmc (1:1), ΔE*94, ΔE*00
Repeatability	Transmittance: standard deviation ≤ 0.08 % Colorimetric value: ΔE*ab ≤ 0.015 standard deviation, maximum ≤ 0.04
Interstation error	ΔE*ab < 0.25

Features

- Integrates multiple color indicators, including U.S. and European pharmacopoeias
- Intelligent zero calibration with ΔE*ab ≤0.01
- Provides pharmacopoeia color number, pass/fail results, test report results etc
- Minimum required sample volume is 1 ml
- Thermostatic sample tank up to 90°C
- Supports storage of over 100,000 data records

- Compatible with color expert and color QC2 software

Applications

- It is widely used to measure and analyse the color of liquids in a precise, quantitative way and finds applications in quality control, product formulation, research, and standardization across industries such as food and beverages, pharmaceuticals, chemicals, textiles, paints, and environmental testing.

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